

- England and other parts of the United States. JOHN M. CLARKE, State Museum, Albany, N. Y. Portfolio of paleontological plates, in press. Plates of "Wild flowers of New York," in press. Geological map of Ogdensburg, N. Y., and vicinity, in press.
- H. W. SHIMER, Massachusetts Institute of Technology. Evolution of some brachiopods.
- RICHARD M. FIELD, Harvard University. Ordovician rocks and faunas of central Pennsylvania.
- W. B. SCOTT, Princeton University. Proofs of plates for forthcoming report on paleontology of Patagonia.
- W. J. V. OSTERHOUT, Harvard University. Pigments produced by the oxidation of a colorless plant chromogen.
- CHARLES W. JOHNSON, Boston Society of Natural History. Distribution and variation of *Helix hortensis*.
- JOSEPH A. CUSHMAN, Boston Society of Natural History. Some fossil and recent foraminifera.
- ALFRED G. MAYER, Marine Laboratory, Carnegie Institution. Yacht and laboratory of the Carnegie Institution at Tortugas, Florida.
- HUBERT LYMAN CLARK, Museum of Comparative Zoology, Harvard University. Echinoderms from Torres straits, Australia, with colored drawings and lithographs.
- G. H. PARKER, Harvard University. The suction efficiency of a California sea-anemone.
- W. T. BOVIE, Harvard University. Visible effects of Schumann rays on protoplasm. Effects of radium rays on permeability of protoplasm.
- C. T. BRUES, Bussey Institution, Harvard University. Specimens and charts illustrating insects as carriers of infantile paralysis.
- W. E. CASTLE, Bussey Institution, Harvard University. Examples of Mendelian inheritance, reversion and variety formation in rats and guinea-pigs.
- FRANCIS G. BENEDICT, Nutrition Laboratory, Carnegie Institution. Respiration apparatus for animals.
- T. B. OSBORNE, Connecticut Agricultural Station, and L. B. MENDEL, Sheffield Scientific School, Yale University. Photographs representing the growth of chickens fed with definite mixtures of food stuffs under laboratory conditions which have heretofore not led to success.
- I. CHANDLER WALKER, Medical Service, Peter Bent Brigham Hospital. Protein sensitization in relation to bronchial asthma.
- H. S. WELLS, Medical Service, Peter Bent Brigham Hospital. Electrocardiography, or the application of the string galvanometer to the study of cardiac cases.
- ALBERT A. GHOREYEB, Cancer Commission, Harvard University. Metal casts of heart and kidney blood vessels.
- S. B. WOLBACH, Harvard Medical School. Studies in Rocky Mountain spotted fever.
- HARVEY CUSHING AND W. M. BOOTHBY, Peter Bent Brigham Hospital. Apparatus of routine methods for clinical metabolism determinations.
- E. W. GOODPASTURE, Peter Bent Brigham Hospital. An anatomical study of senescence, with especial reference to tumors.
- E. E. TYZZER AND C. C. LITTLE, Harvard Medical School. The inheritance of susceptibility to transplanted tumor.
- W. DUANE, Harvard Medical School. The technique of the preparation of radium for therapeutic purposes.
- G. C. WHIPPLE, School for Health Officers, of Harvard University and Massachusetts Institute of Technology. Charts showing organization and membership of the school.
- W. T. SEDGWICK, Massachusetts Institute of Technology. (1) Diagrams and tables illustrating the investigations of Professor Weston and Mr. Turner upon "The digestion of sewage effluents in an otherwise unpolluted stream." (2) An investigation of the behavior of certain species of bacteria in various materials between zero Centigrade and zero Fahrenheit. (3) A field investigation of the sanitary environment of a suburban population. (In room 10-411.)
- S. C. PRESCOTT, Massachusetts Institute of Technology. Diseases of the banana in Central America and their control. (In room 10-411.)
- ALFRED M. TOZZER, Peabody Museum, Harvard University. Race-mixture in Hawaii.
- CHARLES PEABODY, Peabody Museum, Harvard University. Prehistoric specimens from caves of France and Palestine.
- E. A. HOOTON, Peabody Museum, Harvard University. Casts and reconstruction of ancient man: skull of apes.
- S. J. GUERNSEY, Peabody Museum, Harvard University. Cave explorations in northeastern Arizona.
- ORIC BATES, Peabody Museum, Harvard University. Prehistoric Libyan remains.

THE NEW YORK MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE American Association for the Advancement of Science will hold its sixty-ninth meeting in New York City, from December 26 to December 30, 1916. This will be the fifteenth

of the convocation-week meetings and the first of the greater convocation-week meetings to be held hereafter once in four years, successively in New York, Chicago and Washington. When the association last met in New York, now ten years ago, there were about 5,000 members, the attendance was over 2,000, and there were nearly 1,000 papers on the programs. The membership of the association at present numbers about 11,000; the coming meeting will surely be the largest and most important gathering of scientific men hitherto held in this country or elsewhere. It has been planned that at these greater convocation-week meetings all the affiliated societies will join and this year there will be, including the sections of the association, more than fifty separate national bodies meeting together. Recent events have impressed on the general public the importance of science for modern civilization and national welfare and the responsibility of leadership has been placed on this country. It is consequently extremely desirable that scientific men make all possible efforts to be present at the meeting, which will be historic in the history of science and may serve in important ways to forward its advancement.

The registration headquarters will be at Earl Hall, Columbia University, and will be open on December 26, after 9 A.M. Most of the meetings of the sections of the association and of the national affiliated societies will be held at Columbia University. There will, however, be meetings at the American Museum of Natural History, at the City College, in the medical schools of the city and elsewhere, as may be arranged in the sections and by the societies. The council will meet at 9 o'clock on the morning of December 26, in the trustees' room, Columbia University, and will meet at the same time and at the same place daily during the meeting. The meeting of the general committee will be held at the hotel headquarters, the Hotel Belmont, at 9:30 on the evening of December 29. The Committee of One Hundred will meet at the Hotel Belmont at 2 o'clock on the afternoon of December 26. The several sections will hold their sessions for the nomination of officers and the

transaction of other business on the call of the chairman, in most cases just before or just after the address of the retiring vice-president.

A complete program of the meeting, including the programs of the affiliated societies, will be ready on the morning of December 26 and will be given to members on registration. The reports on research work before the special societies will doubtless be more numerous than ever have been presented at a gathering of scientific men, and arrangements have been made for many programs of general interest and for social events, only part of which can be noted here.

The opening general session will be held at 8 o'clock on the evening of Tuesday, December 26, at the American Museum of Natural History. Dr. Charles R. Van Hise, president of the University of Wisconsin, will preside, and Dr. W. W. Campbell, director of the Lick Observatory, will give the address of the retiring president on "The Nebulae." After the address there will be a reception by the president and the trustees of the museum.

Section A, Mathematics and Astronomy, will hold a general session, probably on Thursday. The address of Professor Armin O. Leuschner, of the University of California, will be on the "Derivation of Orbits." The American Mathematical Society, the Mathematical Association of America and the American Astronomical Society will meet in affiliation with the section.

Section B, Physics, will listen to the address of Professor Percival E. Lewis, of the University of California, on "Recent Progress on Spectroscopy," probably on Thursday evening. Papers in physics will be on the program of the American Physical Society, but there will be a general-interest session held jointly with Section C and the American Chemical Society. The Optical Society of America will meet in affiliation with the section.

Section C, Chemistry, will have as its vice-presidential address, "Asymmetric Syntheses and their Bearing upon the Doctrine of Vitalism," by Professor William McPherson, of the Ohio State University. Sections B and C, in conjunction with the American Chemical So-

ciety and the American Physical Society, will hold a joint session on "The Structure of Matter" on the morning and afternoon of Wednesday. These sessions will be held at the City College, which will provide luncheon and opportunity to inspect the buildings. On Thursday evening, at the American Museum of Natural History, Professor A. A. Noyes, of the Massachusetts Institute of Technology, will give one of the lectures complimentary to the citizens of the city on "The Production of Nitrogen." This lecture will be followed by a reception and a chemical exhibit. The American Electrochemical Society, as well as the American Chemical Society, will meet in affiliation with the section, and plans a symposium on "The Conduction of Electricity through Gases."

Section D, Engineering, will hold a session in the Engineering Societies Building, on the invitation of the United Engineering Society, the American Society of Civil Engineers, the American Institute of Mining Engineers, the American Society of Mechanical Engineers and the American Institute of Electrical Engineers. At this meeting Dr. Bion J. Arnold will give the address of the retiring chairman and there will be addresses by representatives of the engineering societies, followed by a reception to engineers and those working in sciences related to engineering. Section D will hold a joint session in the assembly hall of the Automobile Club of America, with the National Highways Association, the Automobile Club of America and the National Automobile Chamber of Commerce. There will also be joint sessions with the Society for the Promotion of Engineering Education and a session on sanitary engineering.

Section E, Geology and Geography, will meet on Tuesday and Wednesday, at Columbia University, when a special program by state geologists on the geology of their respective states will be presented. Owing to the death of Professor Charles S. Prosser, there will be no vice-presidential address. The Association of American Geographers will hold its meetings following those of the geologists. The address of the president, Professor Mark

Jefferson, of the Michigan State Normal College, will be on "The Geographic Provinces of the United States." The American Alpine Club will meet at the New York Public Library on December 30.

Section F, Zoology, will hold its meetings with the American Society of Zoologists and the American Society of Naturalists. It is expected that Professor Vernon L. Kellogg, of Stanford University, will return from Europe in time to give the address of the retiring chairman. A dinner in honor of Professor E. B. Wilson, a past-president of the association, will be given at the Hotel Manhattan on Thursday evening, by his former students and colleagues. The Vertebrate Paleontologists will meet at the American Museum of Natural History on Thursday and Friday. The Entomological Society of America will meet on Tuesday and Wednesday, the address of the retiring president, Professor T. D. A. Cockerell, on "Fossil Insects," being given on the evening of the latter day. The American Association of Economic Entomologists will meet on Thursday, Friday and Saturday. There will be an address by the president, Dr. C. Gordon Hewitt, of the Dominion Experimental Farm at Ottawa. The entomologists will meet at Columbia University, with probably one session at the American Museum.

Section G, Botany, will hold a general-interest session on the afternoon of Wednesday, at which the address of Professor William A. Setchell, of the University of California, on "The Geographic Distribution of Modern Algae," will be given. This will be followed by a symposium on the relations of chemistry to botany, opened by W. J. V. Osterhout and J. Arthur Harris. This is a joint session with the American Botanical Society, the American Phytopathological Society and the Ecological Society of America. Each of these societies will hold important programs. On Thursday there will be a joint session for the reading of invitation papers, at which the speakers will be William A. Merrill, Erwin F. Smith and W. A. Orton. In the evening a dinner for botanists will be given at the Hotel McAlpin, at which the address of Professor John M.

Coulter, the retiring president of the Botanical Society of America, on "Botany as a National Asset" will be given.

The American Society of Naturalists will meet on Friday. In the afternoon there will be a symposium on "Biology and National Existence," with papers by Stewart Paton, W. J. Spillman, Vernon L. Kellogg, Jacques Loeb and Edwin G. Conklin. After the dinner at the Hotel Manhattan in the evening Professor Raymond Pearl, of the Maine Experiment Station, will give the presidential address. The New York Zoological Society will entertain at the New York Aquarium the members of the Society of Naturalists and related societies on the evening of December 27. The American Eugenics Association will meet on Tuesday, Wednesday and Thursday, the address of the president, Dr. David Fairchild, of the United States Department of Agriculture, being on "The Importance of Photographs in Presenting Eugenic Discoveries." The Eugenics Research Association will hold a meeting under the presidency of Dr. Adolf Meyer, of the Johns Hopkins University.

Section H, Anthropology and Psychology, will refer special papers to the American Anthropological Association and the American Psychological Association. The address of the retiring chairman, Professor Lillien J. Martin, of Stanford University, will be on "Personality as revealed by the Content of Images." The American Anthropological Association, under the presidency of Dr. F. W. Hodge, of the Bureau of American Ethnology, will meet at the American Museum of Natural History, on Tuesday, Wednesday, Thursday and Friday. In affiliation with it will meet the American Folk Lore Society, the address of whose president, Dr. Robert H. Lowie, of the American Museum of Natural History, will be on "Oral Tradition and History." The American Psychological Association celebrates the twenty-fifth anniversary of its foundation on the afternoon of Friday. There will be historical papers by G. Stanley Hall, J. McKeen Cattell, Joseph Jastrow and John Dewey. The address of the president, Professor Raymond Dodge, of Wesleyan University, on "The Laws of

Relative Fatigue," will be given on Wednesday evening at Columbia University, followed by a smoker. The annual dinner will be at the Hotel Marseilles. The association will hold a joint session with the section of education on Friday. The American Philosophical Association will meet at the Union Theological Seminary, adjacent to Columbia University, on December 26, 27 and 28. The address of the president will be given by Professor A. O. Lovejoy, Johns Hopkins University.

Section I, Economic Science, will listen to an address on "Scientific Efficiency and Industrial Museums, our Safeguards in Peace and War," by Dr. George F. Kunz, of New York. The programs of the section will be devoted to the metric system, to the national thrift movement, and to the effect of peace on our economical conditions. These sessions will be held at Columbia University. There will be a meeting concerning insurance on Friday afternoon in the Metropolitan Auditorium, Madison Square.

Section K, Physiology and Experimental Medicine, will meet at the American Museum of Natural History on Friday afternoon. Professor Frederic P. Gay, of the University of California, will make an address on "Specialists and Research in Medical Science" and there will be a symposium on "Cancer and its Control," taken part in by Gary N. Calkins, Leo Loeb, J. C. Bloodgood, James Ewing and E. C. Lakeman. This will be a joint meeting with the American Society of Bacteriologists. The Federation of American Societies for Experimental Biology, consisting of the American Physiological Society, the American Society of Biological Chemists, the American Society for Pharmacology and Experimental Therapeutics, and the American Society for Experimental Pathology will meet at the Cornell Medical College on Thursday, Friday and Saturday. There will be dinners on Thursday and Friday evening. The American Association of Anatomists will hold its meetings on Wednesday, Thursday and Friday, in the anatomical laboratories of three medical schools of the city, under the presidency of Professor Henry H. Donaldson, of the Wistar Institute.

Dr. Simon Flexner, director of the laboratories of the Rockefeller Institute for Medical Research, will give one of the public lectures before the association.

Section L, Education, will have, as the vice-presidential address, "Some Obstacles to Educational Progress," by Professor Ellwood G. Cubberley, of Stanford University. The section will meet on Wednesday, Thursday and Friday for discussion on educational tests and measurements, research problems and administrative problems. The American Nature Study Society and the School Garden Association of America are among the societies meeting with the association. The Society of Sigma Xi will hold its annual convention at Columbia University on the afternoon of Wednesday, with its dinner in the evening, at which there will be an address by the president, Dr. Charles S. Howe, president of the Case School of Applied Science. The American Association of University Professors will meet at Columbia University on Friday and Saturday, with a dinner at the Hotel Astor on Friday evening.

Section M, Agriculture, will meet on Tuesday and Wednesday. The address of the retiring vice-president, Dean Eugene Davenport, of the University of Illinois, will be on "The Outlook for Agricultural Science." This address, which will be delivered on the afternoon of December 27, will be followed by a symposium on the same subject, which will be taken part in by H. J. Wheeler, J. C. Lipman, G. F. Warren and B. Youngblood.

There will be a scientific exhibit and conversazione in University Hall, Columbia University, on the afternoons of Wednesday, Thursday and Friday, from twelve to six and probably on Wednesday evening from eight to ten. The demonstrations and exhibits before the separate societies will be made as usual, but in addition there will be gathered in one place exhibits showing the more important recent advances in the sciences in so far as they are of general interest. Scientific men will be present from four to six in the afternoon to explain and demonstrate the exhibits. It is hoped that the conversazione will not only

be a convenient way for scientific men to inspect the work being done in different sciences, but will also enable them to meet their colleagues working in other departments.

Tea will be served by the Columbia University Ladies Committee in the Philosophical Building from four to six on the afternoons of Tuesday, Wednesday, Thursday and Friday. The Faculty Club of Columbia University will be open to men as a social center at these and at other times. The courtesies of the Chemists' Club (52 East 41st Street) are extended to members (men) for the days of the meeting. The Alumni Clubs of different universities and colleges and the Fraternity Houses, of which there are large numbers in New York City, will doubtless be glad to welcome their alumni. Luncheons may be obtained in the Columbia University Commons, the lunch room of Horace Mann School and the lunch room of Barnard College and in restaurants adjacent to the university.

The hotel headquarters will be the Hotel Belmont, which allows a discount to members on all rooms. It is situated opposite the Grand Central Station on 42d Street. This is also an express station of the subway by which Columbia University (Broadway and 116th St.) can be reached in about twelve minutes. The cars are marked Broadway or Dyckman Street; Lenox Avenue and Bronx Park cars are to be avoided. Other hotels have been selected as headquarters for some of the societies and sections. Thus the naturalists have selected the Manhattan; the zoologists the Astor; the botanists the McAlpin; the entomologists the Endicott; the anatomists the Martini-que and the psychologists the Marseilles. Reservation of rooms should be made well in advance, as New York hotels are often completely full at this season of the year. The dormitories of Columbia University (for a limited number of men) and the dormitories of Barnard College and of Teachers College (for women) will be open for members at a cost of \$1 a night. There are numerous boarding and lodging houses in the neighborhood of Columbia University which at the time of the meet-

ing will not be occupied by students and can be engaged by members.

The announcements here made are only those that have been reported well in advance and represent a small part of the programs. More than one thousand papers and addresses will be presented at the meeting, which will represent fully the advances of the natural, exact and applied sciences during the past year. There will, indeed, be so many simultaneous programs of interest that the difficulty will be to choose among them. A meeting of this size, however, will be held only once in four years, and the conflict is after all not so serious as if the meetings were held in different cities. A joint meeting of scientific men working in all fields gives opportunity for them to meet personally and to consult through committees and boards on means of promoting the advance of science by joint action. A meeting of such magnitude also serves to impress on the general public the strength which science has attained in this country, and the need of supporting scientific research for the welfare of the nation.

SCIENTIFIC NOTES AND NEWS

THE John Fritz medal was awarded in January, 1916, to Dr. Elihu Thomson, for "Achievements in Electrical Inventions, in Electrical Engineering, in Industrial Development and in Scientific Research." We learn from the *Electrical World* that the medal will be presented to Dr. Thomson at a meeting to be held in Boston on Friday evening, December 8. The presentation will take place in the Central Lecture Hall of the new buildings of the Massachusetts Institute of Technology. The program of the evening will include addresses by John J. Carty, chairman of the presentation committee of the board of award; E. W. Rice, Jr., president of the General Electric Company, and Dr. Richard C. Maclaurin, president of the Massachusetts Institute of Technology. The presentation will be made by Dr. Charles Warren Hunt, and the ceremonies will conclude with the response of Dr. Thomson. The John Fritz medal is awarded

from time to time for notable scientific or industrial achievement, and was provided for in a fund subscribed in memory of the great engineering pioneer, John Fritz. The award of the medal is made by a permanent board composed of four members from each of four American national engineering societies, namely, the American Society of Civil Engineers, the American Society of Mechanical Engineers, the American Institute of Mining Engineers and the American Institute of Electrical Engineers. The members of the 1916 board are: Representing the civil engineers—Charles Warren Hunt, John A. Ockerson, George F. Swain, Charles D. Marx; representing the mechanical engineers—John R. Freeman, Ambrose Swasey, John A. Brashear, Frederick R. Hutton; representing the mining engineers—Albert Sauveur, E. Gybbon Spilsbury, Charles F. Rand, Christopher R. Corning; representing the electrical engineers—Ralph D. Mershon, C. O. Mailloux, Paul M. Lincoln, John J. Carty.

THE trustees of Cornell University have accepted the resignation of George Sylvanus Moler, professor of physics, to take effect in June, 1917. Professor Moler will retire from teaching, having reached the age limit. The board placed upon its minutes the following resolution:

Resolved, that the trustees in accepting the resignation of Professor Moler desire to express their high appreciation of his faithful and devoted service to the university in the department of physics for over forty years. As a teacher he is held in affectionate and grateful remembrance by many generations of university students. For twelve years he shared with Professor Anthony the entire work of the department and during that period in collaboration with him designed, constructed and installed the first dynamo in America, the first arc-lighting system (that on the campus of Cornell University), and the first apparatus for the electrolytic production on a considerable scale of oxygen and hydrogen. He has also devised countless original and ingenious pieces of apparatus of incalculable value to the department of physics. And the photographic laboratory in Rockefeller Hall, with its original and unique equipment, is largely of his planning.